OHD-CORE-CHPS-3.3.a Release Notes

Release Date: 1/10/2014
Release Type: Scheduled
OHD-CORE Build: 3.3.a
OHD-CORE Build and Package Date: 12/19/2013
Tested against FEWS Binary: 2013.01 build 43108 (patched from 42428)

Introduction

This document contains release notes for OHD-CORE-CHPS-3.3.a. Click here to enter text.

Fixes

FogBugz ID	Reported By	Title
1199	OHRFC	Excessive RESSNGL run times
1046	APRFC	GraphGen Error message when building products with fewer than 3 Thresholds
1252	MBRFC	Grib files generated by nc2grib cannot be input to FEWS

Enhancements

FogBugz ID	Requested By	Title
1059	CNRFC	Probabilistic Inflow Volume Display in Graphics Generator
1098	WGRFC	GraphGen nodeId "all segments" has no sub-groups
1126	ABRFC	Text based products from Graphics Generator vs ESP/ESPADP
1212	ABRFC	Setting physical dates in Graphgen
-	-	New help mechanism implemented for the **GraphGen Editor Panel**

Documentation

The following pieces of documentation have been added or modified since the last release and can be found in the 'documentation' directory at the root of the package. All the documentation for OHD-CORE-CHPS-3.3.a can be found online at http://www.nws.noaa.gov/oh/hrl/general/indexdoc.htm.

- *Modified: Calibration_Configuration_Guide.docx*
- *Modified: Calibration_Reference_Manual.docx*
- *Modified: Graphics_Generator_Tips_and_Troubleshooting.docx*
- *Modified: Graphics_Generator_Installation_Guide.docx*
- *Modified: Graphics_Generator_AHPS_Products_Installation_Guide.docx*
- *Modified: Graphics_Generator_Getting_Started.docx*
- *Modified: Graphics_Generator_Reference_Manual.docx*

Notes

Update: OHD bin and plugin directories contents updated

Description

Some of the jar files located in the OHD bin and plugin directories were modified while some new jar files were created. Below is a list of modified and new jar files:

Modified:

bin/ensdrivers.jar
bin/ohdcalibration.jar
bin/ohdcommonchps.jar
bin/ohddrivers.jar
plugins/ohdcommonchps.jar

New:

bin/commons-compress-1.4.1.jar
plugins/BrowserLauncher2-all-1_3.jar
plugins/commons-compress-1.4.1.jar
plugins/jpedal_lgpl.jar

Fix: FogBugz case 1199 – Excessive RESSNGL run times

Description

We have several RESSNGL simulations that have excessive run times. Because of that, it seems as though there is some sort of an issue with the RESSNGL adapter. On the NHOR server there are three files with dates of Aug 10 or Aug 11 for your perusal. A quick glance at the log file by using log.txt.longRESJ file by "grep RESSNGLMODEL" on the log file will give you an idea of which ones. I can save you some time as we have found 4 offenders that are the bulk of the issue. They are tygw2, wdrp1, sumw2, and bulw2. One thing we noticed quickly is that the 4 offenders have multiple rulecurves in them, which I find rather interesting. I have thought for a while that there is an issue with the RESSNGL adapter as our complex RESJ operations don't have anywhere near the runtimes as the 4 suspect RESSNGL operations.

Cause

The slowness is due to a section of code within xqtr26.f executing a loop with a nested inner loop within erul26.f that tried to compute the number hours in a year for each time step. It wastes a lot of CPU time, especially in ESP run.

Fix

Code changes were made to calculate the number of hours in a year for each time step at the initial section and pass values as a parameter to lower function calls.

Fix: FogBugz case 1046 – GraphGen Error message when building products with fewer than 3 Thresholds

Description

This issue was found during CHPS-3.0.1 beta testing by APRFC who has several sites that only use 2 threshold levels instead of the usual 3.

Cause

If a threshold is defined with an argument for either its start or end value, and that argument could not be resolved, it would error out. More generally, if either value is not a number, as in this case, it would error out.

Fix

Two changes were made:

(1) GraphGen will no longer error out if both the start and end values for a threshold are unbounded.
(2) GraphGen will assume that if a start or end value for a threshold is not a number (e.g., refers to an argument that is not defined), then the value is unbounded.

These two changes should allow GraphGen for AHPS products to properly display flood thresholds if no major threshold is define and no minor or major threshold is defined. See notes for unhandled cases.

Notes

For the AHPS products, if a minor and major threshold is defined, but not moderate, then both will be unbounded and the minor threshold will overlap the major threshold, changing its apparent color. Please report via FogBugz if you have an example of this case that causes problems for your AHPS products.

Fix: FogBugz case 1252 – Grib files generated by nc2grib cannot be input to FEWS

Description

Problem is occurring at MBRFC. POC is John Lague.
Datatype = 6 hr average temperature
The previous problem (FB 446) was reported by NCRFC using 24hr temperature data.

Cause

Incorrect use of an old library when creating the executable.

Fix

No code changes. Used the correct library for creating the executable.

Notes

A new test case for nc2grib was created using the MBRFC input.

Enhancement: FogBugz case 1059 – Probabilistic Inflow Volume Display in Graphics Generator

Description

Be able to create CNRFC probabilistic inflow volume accumulation graphic with Graphics Generator. See FogBugz for an example.

Fix

The **Aggregation Subpanel** within the **Chart Series Panel** has been modified to allow for the user to specify the aggregation period independently of the computation time step, and then specify the anchor position (centered or ending) of each period relative to the computation time step. The aggregation period choices include “accumulative” along with the standard time step choices. This will then allow the user to, for example, specify weekly accumulative volumes aggregation, as well as the possibility of computing moving averages centered at computation times.

Additionally, the ability to specify a unit conversion for calculation output has been implemented. This will allow for a product to display chart series in any units independently of the display unit settings of CHPS.

A complete description of all changes is made available in a document attached to the FogBugz.

Enhancement: FogBugz case 1098 – GraphGen nodeId "all segments" has no sub-groups

Description

GraphGen products such as those defined in the ahpsInstallationImport.xml file are effective for all segments when imported. There is no option to specify sub-groups of all segments such as a list of reservoir locations. As a result, all non-typical AHPS forecast points, such as reservoirs for example, will require manual editing with the GraphGen editor to deactivate flow location products and activate reservoir location products

Fix

GraphGen settings, which are set via the **Modify Settings Dialog** (accessed via the gears button in the toolbar of the both the **GraphGen Tree Panel** and **GraphGen Thumbnails Panel**), will now allow for segments to be assigned included groups. For example, the AHPS streamflow products could be saved for group “AHPS Flow Products” and AHPS stage products for group “AHPS Stage Products”. Then, for each segment for which AHPS flow products will be created, via the **Modify Settings Dialog**, add the group “AHPS Flow Products” to be included for that segment. Similarly, those segments to display AHPS stage product can have the group “AHPS Stage Products” included.

This change required label changes in other dialogs as well. For example, the **Save Product Dialog** has been changed so that the “segment id” is now the “segment/group id”.

Enhancement: FogBugz case 1126 – Text based products from Graphics Generator vs ESP/ESPADP

Description

The format used for text-based ensemble products is different with Graphics Generator compared to what is produced using ESP/ESPADP

Fix

A new ESPADPQuantiles output generator plug-in has been added to allow for creating ASCII products similar to the ESPADP quantiles product. However, some of the header information provided in the ESPADP product cannot be acquired using information available to Graphics Generator. Those fields are replaced by appropriate text, such as "NOT APPLICABLE" for the trace file name.

The delivery includes an example ESPADPQuantiles product designed to use the time series displayed in the AHPS streamflow products. It can be imported from the file ahpsFlowESPADPQuantilesInstallationImport.xml; see the *Graphics Generator AHPS Product Installation Guide* for more information.

Enhancement: FogBugz case 1212 – Setting physical dates in Graphgen

Description

We will need the option of setting in Graphgen the ending month/day with a wildcard for the year. This way, we will not have to change the ending date of the graphic every year.

Fix

In the **Aggregators Subpanel** within the **Chart Series Panel**, fixed dates for the start and end date can now be set so that the first digit of the year is '0', i.e., the year is '0###'. In such a case, the fixed date will be computed by GraphGen so that all fields other than year are those specified in the date, but the year is computed as the first year after the current T0 for which the date exists with the value of '###' – 1.

Assuming T0 is 01-10-2013 12:00:00, here are some examples:

date	value
06-01-0001 12:00:00	06-01-2013 12:00:00
06-01-0002 12:00:00	06-01-2014 12:00:00
06-01-0101 12:00:00	06-01-2113 12:00:00

This change allows for the user to specify an aggregation that covers a fixed part of the year, such as Jan 1 – Mar 31, regardless of the current system time.

Notes

The year 0000 is not allowed. The reason is because the standard date tools used by GraphGen do not allow for a year 0000, but do allow for 0001. This enhancement has been designed to allow for those standard tools to continue to be used to specify a fixed date.

Also, it is not recommended that this option be used if the rest of the date fields in the fixed date correspond to a leap day, Feb. 29. The time span can include a leap day, so that the aggregation includes one extra day every four years, but should not start or end on a leap day.

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*Enhancement: New Help Mechanism for **GraphGen Editor Panel***

Description

A new help mechanism to allow for clicking on a component of the **GraphGen Editor Panel** and opening the **GraphGen Reference Manual** to the section that describes that component has been implemented. The previous help mechanism always opened up the manual at the first page.

This change makes the **GraphGen Editor Panel** consistent with other recently developed software.

Fix

To use the new help mechanism, click on the **Help Button** in the toolbar of the **GraphGen Editor Panel**, then move the mouse cursor over the component for which help is needed. The component corresponding to the mouse cursor position will be highlighted by a faded red rectangle. Clicking will open the *Graphics Generator Reference Manual* to the section corresponding to the highlighted component in a Java-based PDF viewer. This mechanism will allow for selecting subpanels within the editor, but not individual buttons, tables, and so forth.

To view help for the **GraphGen Tree Panel**, **GraphGen Editor Panel**, or **GraphGen Viewer Panel**, use the **GraphGen Editor Panel** to open up the help manual PDF and navigate to the section on the appropriate component. The mouse clicking mechanism will not work for those components.
